

Release Note Version ARCO 2.9

ARCO2.9 版本发布说明

A. Hardware Interface/硬件接口

1. Control WPC: It is now available the use with controller WCP2030 from Pantec.

WPC 控制：支持 Pantec WCP2030 控制器。

2. Control Deva: It is now available the use with controller 004 from Deva.

Deva 控制：支持 Deva 004 控制器。

3. Control Ucc: The libraries from Renishaw UCC has been updated

Ucc 控制：支持 Renishaw UCC 的系统已经升级。

B. Languages/ 语言

1. Polish Language: The language in Polish is now available

波兰语：支持波兰语。

C. General Software implementations/软件升级

1. Graphical Simulations of the Measuring Path: It is now possible, as an option, to simulate the inspection path in Offline mode.

测量路径的图形仿真：增加了离线状态的测量路径仿真选项。

2. Graphical Editing of Path: It has been added the option to graphically edit the measuring path on the teach panel before they actually got send to the part program.

路径的图形化编辑：增加了图形化的编辑测量路径功能，可以在路径实际生成程序前加以修改编辑。

3. Modification of an existing program: It is now optionally available the methods to edit existing part programs and the nominal of the geometrical elements.

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcoCAD.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arcoCAD.cn

现有程序的修改：可以很多可选择的方法来修改现有的程序部分和元素的名义值。

4. Surf points - Delete: It is now possible to delete point in a Gsurf after the inspection.

曲面点——删除：在测量后可以删除曲面上的点。

5. Gsurf points - Visualization: It is now possible to show the deviation of the points from the CAD area.

曲面点——误差显示：在 CAD 图形上可以显示测量点的偏差。

6. Visualization of the name of the feature: It is possible to show the feature name from the CAD area.

元素名称显示：在 CAD 图像区可以显示元素的名称。

7. Visualization of the ram of the CMM: The ram of the CMM can be shown in the graphic area.

显示测量机臂：可以在图形区显示测量臂。

8. Manual inspection strategy: It is possible to create a manual inspection strategy in run it without the need to interact with the software.

手动检测方案：不需要和软件相结合就可以创建手动检测方案。

9. Auto Zoom: The probe can be located in the center of the CAD area during the measures

自动缩放：在测量过程中测头可以锁定在 CAD 图形区中间。

10. Point Definition: The feature point can be defined with direct extraction the geometry.

点的定义：点可以在元素中提取定义。

11. List in PROJECT POINT function: the list of feature in the PROJECT POINT dialog has been re-organized.

投影点的列表功能：对投影点对话框的元素列表进行了重新组织。

12. 2D Features in Sync: The sync of the 2D elements orients properly the features.

2 维元素同步：更适合 2D 元素的方向对齐了。

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13. Toolbar Sync/Desync: In the CAD toolbar has been added two icons for Sync/De-Sync operations.

同步/取消同步工具条：在 CAD 工具条中增加了同步/取消同步两个选项按钮。

14. Graphical Selection of lie direction: With the key-combination CTRL+CLICK it is now possible to graphically select of the lie plane.

图形化选择视图平面：用 CTRL+CLICK 组合键将可以图形化的选择视图平面。

15. Coordinate System in Graphical Report: In the graphical report it is now possible to show the coordinate system.

图形报告里的坐标系：在图形报告中可以显示坐标系。

16. Model initialize: after deleting, modifying or adding models, the geometry is now automatically initialized.

模型初始化：在删除，修改，增加模型后元素将自动初始化。

17. Feature construction by points: The cursor for the Point feature definition has been enlarged.

点构造元素：增大了点元素定义的光标。

18. Dialog for Deviation of GSurf and GCruve: The dialog with the real time deviation of GCURVE and GSurf can be shown in three different sizes.

曲面曲线误差对话框：曲面曲线的实时偏差窗口可以以三种不同的尺寸显示。

19. Highlighting of deviation in GSurf: In the GSurf deviation dialog the axis with the major deviation it is now highlighted.

曲面偏差的突出：曲面偏差显示框中，其中误差最大的那个轴将用黄色突出显示。

20. Multiple Imports: It is now possible to import multiple CAD files in one shot.

多个文件的输入：一次可以打开多个 CAD 文件。

21. Deleting Points: During the measurement of an element the point can be deleted by graphical selection.

删除点：测量过程中可以在图形化地选择要删除的测量点。

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22. Collision handling in CNC mode: After a collision in a CNC mode the user can choose he wants to manually measure the elements. In this case after the inspection the measure will continue in CNC.

CNC 模式下的碰撞处理：在 CNC 模式下发生碰撞后，用户可以选择手动测量该元素。在这种情况下，该元素测量完毕后将回到 CNC 模式。

23. Collision during the programming in teach cad mode: If a collision happens during the teach cad mode, the feature will not be aborted but it will stay with the current points available.

在 CAD 自学习模式下碰撞：如果碰撞发生在 CAD 自学习模式下，取消错误的点不会导致该元素退出测量，该元素保留已经正确测量的点。

24. Rotation of the Head in Definition mode: When defining a sensor with tilt and Roll, the system warns before the rotation.

在定义测头的时候旋转测头：当定义 A 角 B 角时候，系统在旋转前会警告。

25. Feature with INNER/OUTER tag: The features with the INNER/OUTER tag can be switched in the DB viewer.

有内外之分的元素：在数据库查看中可以改变元素的内外性质。

26. Virtual probe visualization: The probe can be graphically designed in the wizard, and, optionally, be shown in the CAD area.

虚拟测头的显示：测头可以在向导里图形化的定义，而且可以在 CAD 图形区里选择可视。

27. Expire date warning: When the license will expire in the next 15 days, a message it is now shown.

有效期警告：如果软件许可证有效期不多于 15 天，软件将会有提示。

28. IGES handling: the IGES import has been improved.

IGES 转换：IGES 的输入改进了。

29. Multi-page reports: The creation of a multiple pages reports has been modified in order to optimize the efficiency in report creation.

多页报告：为了提高创建报告的效率，创建多页报告已经修改了。

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30. Adding an element to Graph Report: It is now possible to add an element to an existing graphical report.

图形报告中增加元素：可以在现有的图形报告中增加元素。

31. PH10 handling: It is now possible to orient the PH10 head from Arkey remote controller.

处理 PH10：能够使用 Arkey 手柄控制 PH10 旋转。

32. Solving of the anomalies reported.

解决了过去的异常报告。

D. Version CAD support of the interface native/ CAD 接口支持:

Unigraphics : Ver15 to NX5
Pro/E : Pro/E 2000 to WildFire3
Catia V5 : V7 to V18
Catia V4 : V4.15 to V4.24
Step : from AP203/AP214.
Solidworks : 3D 2000 to 2007

E. Firmware/固件

Per le release notes relative all Firmware CC3 3.86, la tabella compatibility è e la manualistica, riferirsi alla documentation specific present nell' installation of P3M Config Version 2.7 or superior.

CC3 控制器的固件要求升级到 3.86 以上，P3M 2.7 版本以上。

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcocad.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arcocad.cn

Release Note Version ARCO 2.8 SP1

ARCO 2.8SP1 发布说明

A. Hardware Interfaces \ 硬件接口

1. GARDA Arm: Added the new Suite Driver to interface the ARM

GARDA 关节臂：增加了一套 ARM 接口驱动。

2. BACES Arm: Added the new version of the software to handle USB connection

BACES 关节臂：增加了新版本软件来处理 USB 连接。

B. Languages \ 语言

Hungarian: Solve minor issue on this language

匈牙利语：解决这个语言的一些小问题

C. General Software Implementation \ 软件升级

1. Temperature Compensation: Solved minor issue on Automatic Temperature compensation

温度补偿：解决了温度自动补偿的小问题。

2. Reporter Template: Updated the Template

报告模板：升级了模板。

3. Menu “GENERAL” in CAD: Solved the issue on selecting files

CAD 中的“一般”菜单：解决了多重文件选择的问题。

D. Supported CAD releases on native interfaces \ CAD 接口支持

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcoCAD.com

邮编: 100079
传真: +86 10-6762.1625
Email: [info @arcoCAD.cn](mailto:info@arcoCAD.cn)

Unigraphics: V. 15 to NX5

Pro-e : Pro/E 2000 to WildFire3

Catia V5: 7 to 17

Catia V4: 4.15 to 4.24

E. Firmware\ 固件

For all the release notes on firmware, please refer to the manual installed with the set up of P3M CONFIG Version 2.5 or higher.

对所有的固件的发布说明，请参照安装 P3M CONFIG 2.5 或者更高版本。



MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcoCAD.com

邮编: 100079
传真: +86 10-6762.1625
Email: [info @arcocad.cn](mailto:info@arcocad.cn)

Release Note Version ARCO 2.8

ARCO2.8 版本发布说明

A. Hardware Interfaces\硬件接口

1. Faro USB ARM: It is now possible to load the current probe when available without re-calibration.

Faro USB 关节臂：在不重新校正测头的情况下可以正确的装载测头。

2. UCC Lite for manual machine: Added to ARCO the possibility to handle the UCC LITE on manual machines.

手动机的 UCC Lite：可以支持手动机的 UCC LITE。

B. Language\语言

Hungarian: ARCO can be shown in Hungarian language.

匈牙利语：ARCO 可以支持匈牙利语。

C. General Software Implementation\软件升级

1. Auto Recognition of Feature: added the capability, during the self teach to recognize automatically the measured elements.

自动识别元素：增加了在自学习下自动识别测量元素的功能。

2. Handing of push button with ARKEY on auto recognition: The Arkey hand box can support all the remote functionality to handle the automatically recognition of feature

ARKEY 上自动识别的按键：ARKEY 操纵盒上支持了所有制动识别元素的功能。

3. Thermal Compensation: The instruction for thermal compensation has been extended in order to be compliant with DMIS 5.0

温度补偿：温度补偿指令已经得到扩展，符合 DMIS 5.0 规范。

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcocad.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arcocad.cn

4. Auto projection of Hole: The measurement of holes is extended making possible the projection over a measured plane.

孔的自动投影：孔的测量得到扩展，可以在测量面板上可以选择投影。

5. Torus Feature: Added the inspection of torus

圆环：增加了圆环的检测。

6. ISO Table on Output: The output of the tolerance diameter has been extended adding the ISO table.

输出 ISO 表格：公差的输出增加了 ISO 表格输出。

7. Naming of features: The default name of each feature can be now set from the option panel.

元素命名：每种元素的默认名称可以在“选项”面板里更改

8. Naming during programming: the name of the feature can be now changed using the rule “name_num” during the programming. This make possible the index of feature

在程序中更改元素的命名：在程序中可以按照“name_num”方式来更改元素名称。以这种方式命名元素，在前缀名称不变的情况下，会自动递增后面的数字。

9. Open - Close Panel from ARKEY: The extension of capabilities of ARKEY make now possible opening and closing panel from the remote control.

从 ARKEY 上打开——关闭面板：ARKEY 可以实现远程控制打开和关闭控制面板了。

10. Output panel: The output panel has been remade with an independent dialog that make possible also to add comments during output.

输出面板：输出面板已经重新设计成独立的对话框了，可以在输出的时候添加注释。

11. Launch panel for Output: The graphical output can be now executed by a launch panel in which a customizable image can be used as preview of the template.

输出面板：图像报告输出可以在输出面板里处理，可以使用自定义的图片来做模板。

12. Type of output: The logical control for output type as been added.

输出格式：增加了输出格式。

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13. Angle: The algorithm for angle calculation has been extended with complementary, supplementary angle.

角度：角度的算法得到扩展，可以计算补角和余角。

14. New CAD engine: the feature for adaptive tessellation has been added.

新的 CAD 引擎：自适应镶嵌功能已经增加。

15. Pierce Point: The pierce point feature has been enhanced with 2D target.

穿透点：2 维下穿透点功能已经增加。

16. Point projection: The point projection has been complete.

点的投影：补充了点投影。

17. Relative Feature: The relative measure enhances the projection over the actual plane.

相对特征：相对测量增强了实测平面的投影。

18. Sheet Metal thickness: the sheet metal offset in now completed in the feature inspection.

钣金厚度：在测量功能中 就能设置钣金厚度。

19. Qualification of manual indexable head: The handling of manual head is now extended on horizontal arms.

手动旋转头校正：水平臂也支持手动旋转头的运用。

20. Runner: A new runner is now handling the CAD inspection.

运行器：新的运行器可以处理 CAD 检测。

21. RTP20: A safety position before the rotation is now active.

RPT20：在旋转前会增加安全点。

22. Hexagonal slot: a macro for hexagonal slot inspection is added to ARCO.

六角槽：ARCO 增加了六角槽测量的宏指令。

23. Import IGES: The import IGES is now more robust.

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IGES 输入：IGES 输入更加强劲。

24. Power User Capabilities: ARCO can now run with power privileges.

用户权限功能：ARCO 可以在不同权限的用户下运行。

25. Bug Fixing: The issues sent about the previous version have been solved.

错误修正：修正了以前版本出现的错误。

D. Supported CAD releases on native interfaces\CAD 接口支持

Unigraphics: V.15 to NX5

Pro-e: Pro/E 2000 to WildFire3

Catia V5: 7 to 17

Catia V4: 4.15 to 4.24

E. Firmware\固件

For all the release notes on firmware, please refer to the manual installed with the set up of P3M CONFIG Version 2.5 or higher.

对所有的固件的发布说明，请参照安装 P3M CONFIG 2.2 或者更高版本。

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcoCAD.com

邮编: 100079
传真: +86 10-6762.1625
Email: [info @arcoCAD.cn](mailto:info@arcoCAD.cn)

Release Note Version ARCO 2.7 Service Pack 1

ARCO 2.7 Service Pack 1 版本说明

A. Hardware Interfaces \硬件接口

1. ARM MICROSCRIBE: From version 2.7 SP1 the articulated arm Microscribe is integrated
MICROSCRIBE 臂: 2.7 SP1 版本支持 MICROSCRIBE 臂。
2. ARM GARDA: From version 2.7 SP1 the articulated arm Garda is integrated
GARDA 臂: 2.7 SP1 版本支持 GARDA 臂。

B. Languages\语言

1. Traditional Chinese: ARCO can now be used with Chinese traditional language.
中文繁体: ARCO 可以在中文繁体下运行。
2. Spanish: ARCO can now be used with Spanish language.
西班牙语: ARCO 可以在西班牙语下运行。

C. General Software Implementation\软件升级

1. Continuous scanning on manual machines: It is now possible to scan in continuous mode with fixed probe manual machines
手动机上的连续扫描: 手动机可以在固定侧头下实现连续扫描。
2. Sensor RTP20: Integration of the RTP20 probe
RTP20 传感器: 集成了 RPT20 传感器。
3. Viewer for marking machines: Added a viewer for marking machine in CNC or MANUAL mode.

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标记机器浏览器：在 CNC 和手动模式下增加了标记机器浏览器。

4. Manual indexable probes: The indication of the angles to be applied has been added to the rotation request message for manual indexable probes.

手动旋转测头：在手动旋转测头时会出现提示信息。

5. Bug fixing:

错误修正：

D. Supported CAD releases on native interfaces\CAD 接口支持

Unigraphics: V.15 to NX 4

Pro-e: Pro/E 2000 to WildFire3 Preproduction

Catia V5: 7 to 16

Catia V4: 4.15 to 4.24

E. Firmware\固件

For all the release notes on firmware, please refer to the manual installed with the set up of P3M CONFIG Version 2.2 or higher.

对所有的固件的发布说明，请参照安装 P3M CONFIG 2.5 或者更高版本。

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcocad.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arcocad.cn

Release Note Version ARCO 2.7

ARCO 2.7 版本发布说明

A. Hardware Interface/硬件接口

1. ARM BACES 3D: Version 2.7 integrates the arm Friul Robot - Baces 3D in the serial line version

3D 关节臂：2.7 版本可以和 Friul Robot - Baces 3D 一系列版本配合。

2. UCC2 Renishaw Numeric Control: Version 2.7 integrates the UCC2 Renishaw Numeric Control for continuous or point to point measuring.

UCC2 雷尼绍 数字控制：2.7 版本集成了连续或点对点测量的 UCC2 雷尼绍数字控制。

B. Language/语言

1. Portuguese: Now ARCO is also available in Portuguese language.

葡萄牙语：现在 ARCO 也可以使用葡萄牙语。

C. General Software Implementation/软件升级信息

1. CAD Engine: The CAD engine has been improved and now it works faster.

CAD 模块：改良了 CAD 模块使其运算更快。

2. User license: Now it is possible to view the User License for ARCO clicking on the menu “Product Information”

用户许可证：现在只要点击 ARCO 菜单中的“产品信息”就可以查看用户许可证。

3. Manual Indexable Sensors: Arco manages the whole set of manual indexable sensors. The calibration wizards have been updated and now they allow the calibration of manual sensors to be executed automatically.

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手动校准传感器：ARCO 软件控制整套手动校准传感器。校准向导已更新，现在他们允许校准手动传感器自动执行校准。

4. Management of the gauge on manual machines: The gauge used for the qualification of the sensors of manual machines is now automatically saved and made available globally

手动机上标准球的管理：用来限定手动机传感器的标准球现在可以自动保存并且可以全局使用。

5. Background of CAD area: Now it is possible to personalize the background of CAD area by choosing plain or blended colours, or images.

图像区的背景：现在可以个性化的在图像区的背景选择单一的或者混合的颜色，以及图片。

6. Groups management: Now it is possible to manage the colours assigned to groups, files or layers separately. Therefore, one may assign different colours to the different sets of entities which belong to a determined group, file or layer.

组的管理：现在可以单独指定颜色给组，文件或者图层。因此，可指派不同颜色的给属于一个确定组，文件或图层的不同的实体。

7. Import of Models: CAD models which come from IGES formats or native formats may be imported keeping unchanged the original colours defined by the project designer.

输入模型：以 IGES 格式或者中间格式导出的 CAD 模型可以保持设计者原先设着的颜色不改变。

8. Reference system view: The visualization of the current reference system now appears on the CAD area.

坐标系的显示：当前坐标系现在显示在图形区域。

9. 2D View: Views of the CAD model according to the views XY, YZ and ZX are now available.

2D 显示：现在可以在 XY, YZ, ZX 视图里显示 CAD 模型。

10. Measuring Strategies: In the dialog boxes for the creation of measuring strategies the measuring tracks are now visible.

测量路径：在建立测量路径的对话框中测量轨迹清晰可见。

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11. Measuring Strategies: Safety points which should be necessary for the accurate execution of the measuring strategies are now created automatically by the system.

测量路径：为精确形成测量轨迹而必须的安全点现在可以由系统自动创建。

12. Management of synchronizing elements: The logics of synchronism between measured elements and the CAD model has been enhanced in order to allow the operator to choose among the elements available to be synchronized.

元素同步的管理：已测量元素和 CAD 模型之间逻辑性已得到加强，以便于操作者在可利用的元素中选择来实现同步。

13. Edges Measurement: Real time view of edges now indicate deviations both on the surface and along the edge itself.

边缘测量：实时的指出在表面或者沿着本身的偏差。

14. Creation of Multi-View Report: The creation of a multi-view report has been improved with the possibility of inserting a comment.

创建多视图报告：创建多视图报告已经得到改良，可以插入注释。

15. Off-line projection of points: Now it is possible for ARCO to take measure of points and surfaces without the CAD model and to project the feature off-line afterwards.

离线点投影：现在 ARCO 可以在没有 CAD 模型的情况下测量点和面并且在事后再做元素投影。

16. Continuous scanning Measuring: Now ARCO is capable of managing continuous scanning through UCC2 Renishaw controls.

连续扫描测量：通过 UCC2 雷尼绍控制器 ARCO 软件已经可以管理连续扫描了。

17. Unknown scanning tracks: Scanning process controlled on self taught tracks based on the DMIS instruction "PATH/UNKNOWN".

未知扫描路径：扫描过程的路径自我控制是基于 DMIS 指令 "PATH/UNKNOWN"。

18. INE scanning track: Continuous scanning process controlled on self taught tracks defined by the DMIS instruction "PATH/LINE".

INE 扫描路径：扫描过程的路径自我控制是基于 DMIS 指令 "PATH/LINE"。

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19. ARC scanning track: Management of continuous scanning process based on self taught tracks defined by the DMIS instruction “PATH/ARC” .

ARC 扫描路径：扫描过程的路径自我控制是基于 DMIS 指令 “PATH/ ARC” 。

20. Scanning track: Management of continuous scanning process based on self taught tracks defined by the DMIS instruction “PATH/HELIX” .

扫描路径：扫描过程的路径自我控制是基于 DMIS 指令 “PATH/ HELIX” 。

21. Inked scanning tracks: Introduction of an extension to DMIS language which allows the linking of more scanning tracks which had been previously defined. This mode, called “GASKET” , allows for continuous and blended execution of scanning processes, which otherwise should be executed one by one.

inked 扫描路径：介绍 DMIS 语言的一种延伸部分，它可以使得先前定义的更多的扫描路径连接起来。这种模式，称之为 “GASKET” ，可连续和混合执行扫描程序，否则应一个接一个地执行。

22. Saving data case on file: Now it is possible to save a reference system or a whole database on a file and reload it afterwards

在文件中保存数据：现在可以将一个坐标系或者一整个数据库保存在一个文件里并且以后可以装载。

23. View of CAD Models: Now the view of CAD models is managed through a new graphic parameter, which allows a simplification of the scene according to the dimensions of the smallest detail selected to be viewed.

查看 CAD 模型：现在通过一种新的图形参数来管理 CAD 模型视图。该图形元素允许提供根据最小细节尺寸选择一个简化的视图来查看。

24. Manipulation of models: Now it is possible to choose among many view options for a scene during manipulation. For example, now it is possible to choose a view mode such as “rendering” and the manipulation such as “wire frame” .

模型的操作：现在操作时，可以从许多个查看选项中选择一个屏幕。例如，现在有可能选择一个视图模式，如 “渲染” 和操纵，如 “线框” 。

25. Algorithm Certification: The calculation algorithm has been certified by the institute “PTB”

运算法则得到证明：运算法则已经通过 “PTB” 研究所认定。

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26. Runout Calculation: The method for calculating Runout tolerance has been further developed.

跳动计算: 计算跳动公差的方法已经得到发展。

27. Measuring of ARCH geometric elements: The measurement of arches elements is now compatible with DMIS.

主要的几何元素测量: 主要的几何元素测量现在都和 DMIS 语言一致。

28. Management of FCR25 tools changer: The management of FCR25 tools changer allows the use of SP25 sensors and the exchange of the plates of the module in use.

FCR25 工具更换装置的管理: 对 FCR25 工具更换装置的管理可以支持使用 SP25 传感器并且交换板模块也在使用。

29. Management of models colouring: There is now available a library of materials and respective edit tools which allow a more realistic depiction of objects.

模型颜色管理: 现在有一个库可以提供许多原料和各自的编辑工具, 这些都可以提供更实际的对象的描述。

30. Execution of programs: The execution module has been improved.

执行程序: 执行模块已经改良。

D. Implementation on CNC Machines/CNC 机器的执行

1. Circular Interpolation: Automatic linear movements for circular and spherical geometric elements have been replaced by movements of circular

圆弧插补: 圆和球形几何元素的自动直线运动运动已被圆周运动替代。

2. ARKEY: All functional keys of ARKEY remote control are available and active.

ARKEY: ARKEY 上所有的功能键都可以实现远程控制。

3. Movement in ARCO: The command GOTO/ARC has been introduced in order to allow circular movements.

在 ARCO 中实现运动: 引进了 GOTO/ARC 命令来实现循环运动。

MetroStaff s.r.l. Beijing Representative office

地址: 北京市丰台区南方庄一号院安富大厦 118 室
电话: +86 10-6762.9917
HTTP: www.arccad.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arccad.cn

4. Visualization of the temperature: The panel which show the temperature of each thermal probe handles up to 8 values.

温度可视：面板可以显示多达 8 个来自温度传感器处的温度。

5. Marking out Viewer: The Marking out viewer is able to manage through ARCO geometric compensation, the ARKEY remote control and the locking of the axes on automatic machines

规划浏览器：可以通过 ARCO 几何补偿来管理规划浏览器，ARKEY 的远程控制和在自动机上锁定运动轴。

6. Management of Double Arm: The ARKEY remote control has been included in the double arm application, so now it is possible to control both machines with one single keyboard.

双臂的管理：ARKEY 的远程控制也包括双臂，所以现在可以用一个控制盒来控制双臂机器。

E. Firmware/固件

For all the release notes on firmware, please refer to the manual installed with the set up of P3M CONFIG Version 2.2 or higher.

对所有的固件的发布说明，请参照安装 P3M CONFIG 2.2 或者更高版本。

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcoCAD.com

邮编: 100079
传真: +86 10-6762.1625
Email: [info @arcoCAD.cn](mailto:info@arcoCAD.cn)

Release Note Version ARCO 2.6 Service Pack 1

ARCO 2.6 SP1 版本发布说明

A. Hardware Interface/硬件接口

1. FARO ARM USB Series: On version 2.6 SP1 is solved a problem on the initial connection to arm
1. FARO ARM USB Series:2.6 SP1 版本解决了和关节臂连接时的一个问题。

B. Software Improvements/软件改进

1. Iterative RPS: The iterative RPS is modified to better cover the complete management of the features during the final verification.

迭代 RPS: 迭代 RPS 修改的更好, 在最后核查中覆盖所有的元素。

2. Graphical Reports: The graphical reports can now be created in multi-page mode

图形报告: 图形报告可以创建多页的模式。

3. Data Viewer: Now is possible to delete star probes from the database

数据浏览: 可以在数据库中删除名义测头。

4. Thermal compensation: Completed minor implementations

热补偿: 完善了微小执行。

5. Form Error Handling: Arco 2.6 Sp1 enhance with the command to repeat the measurement while in manual mode if the form error is bigger than a defined value

形状误差处理: 如果在手动模式下形状误差超过了定义值, Arco 2.6 Sp1 增加了重复测量命令。

6. 2D line compensation: On macro it is now possible to automatic compensate 2D lines.

2D 直线补偿: 现在在宏里实现自动的 2D 直线补偿。

MetroStaff s.r.l. Beijing Representative office

地址: 北京市丰台区南方庄一号院安富大厦 118 室
电话: +86 10-6762.9917
HTTP: www.arcoCAD.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arcoCAD.cn

C. Firmware Improvements/固件改进

For all the release notes on firmware, please refer to the manual installed with the set up of P3M CONFIG Version 2.2 or higher.

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地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcoCAD.com

邮编: 100079
传真: +86 10-6762.1625
Email: [info @arcocad.cn](mailto:info@arcocad.cn)

Release Notes ARCO Version 2.6

ARCO Version 2.6 版本发布说明

A. Hardware Interface/硬件接口

1. FARO ARM USB Series. Version 2.6 can be used directly on FARO ARM with connection through USB port. Serial port connection will be available in the next version

FARO ARM USB 串口. 2.6 版本可以通过 USB 连接直接使用在 FARO ARM。下一个版本将可以实现串口连接

2. DOUBLE POINT CONNECTION. With old CMM the connection with ARCO can be done now throw serial line transmission, in this way the old Hardware can still be used while ARCO does all the calculation.

双点连接：老的三坐标机器和 ARCO 可以通过串行口传输，这样旧的硬件在 ARCO 执行所有计算时依旧可以使用。

B. Language/语言

1. French Language. Now ARCO can be used with French user interface.

法语。 ARCO 有了法语界面。

2. Russian Language. Now ARCO can be used with Russian user interface.

俄语。 ARCO 有了俄语界面。

C. Software Improvements/软件改进

1. RPS Calculation: The RPS calculation has been improved by managing some specific situation where ARCO was providing the alternative solution not expected.

RPS 计算：通过处理 ARCO 提供的不理想的替代解决方案的一些特殊情况改进了 RPS 计算。

2. SHEET METAL THICKNESS in Best Fit: Now ARCO can handle the sheet metal thickness when RPS or BEST FIT alignment is used.

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arcocad.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arcocad.cn

Best Fit 中钣金件的厚度：下载 ARCO 可以处理在 RPS or 或 BEST FIT 找正中的钣金件厚度问题。

3. FOLDED EDGES in Best Fit: During the Best Fit and RPS procedure all the edges can be used. Folded edges have been added.

Best Fit 时卷边：在 Best Fit 和 RPS 找正可以使用所有边，卷边也加进去了。

4. COLOURED INDICATION during Manual Inspection: While Measuring surface now ARCO provide a real time coloured representation of the value according the tolerance

手动测量时的颜色指示：在测量平面时 ARCO 实时提供包括误差等值的显色指示。

5. PICKED POINTS during TEACH CAD: While performing a TEACH CAD inspection all the probed points are represented allowing a better distribution them on the surface.

CAD 自学习时候选点：当执行 CAD 自学习检测所有的探测点可以更好的分配在表面。

6. POINTS COMPENSATION after Best Fit: All the non-aligned point used for Best Fit or RPS procedure is now compensated after the synchronization.

Best Fit 后点的补偿：所有使用 Best Fit 或者 RPS 上的不联系的点在执行程序同步补偿。

7. POINT TO POINT Scanning: From version 3.74 of CC3-2 Ethernet firmware, P3M CONFIG 2.2 and ARCO 2.6, point to point scanning is available

点到点扫描：利用 CC3-2 控制器从 3.74 版本以太网固件，P3M CONFIG2.2 版本，ARCO 2.6 版本就能实现点到点扫描。

8. ENHANCED THERMAL COMPENSATION: From version 3.73 of CC3-2 firmware, P3M CONFIG 2.2 and ARCO 2.6 ARCO can handle up to eight configurable probes for real time linear compensation.

提高了热补偿：利用 CC3-2 控制器从 3.74 版本以太网固件，P3M CONFIG2.2 版本，ARCO 2.6 版本，ARCO 可以处理 8 个参数的实时线性补偿。

9. EDGE DEVIATION visualization: While measuring EDGES the Real Time deviation is now shown and managed by a timer

边界偏差显示：现在当测量一个边界时，偏差会由一个计时器管理并实时显示。

10. PLANE - TWO POINTS Alignment: A specific procedure for PLANE-2 POINTS alignment is now available.

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地址：北京市丰台区南方庄一号院安富大厦 118 室
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HTTP: www.arcoCAD.com

邮编：100079
传真：+86 10-6762.1625
Email: info @arcoCAD.cn

面——两点找正：提供了一个特殊的程序，一个平面两个点找正。

11. DATA BASE Viewer: Now the last measured element is always shown in the viewer.

数据库查看器：最后测量的元素也可以显示在查看器里。

12. DELETE FEATURES: From the data viewer is now available the multiple section and possibility to delete more than one feature at the time.

删除元素：数据库查看器可以看到多个区域，并且可以同事删除多个元素。

13. CAD - VIEWER Synchronization: Now CAD area and viewer are synchronized. The selection can be done in either place.

1 CAD 同步浏览：CAD 区和浏览器是同步的。可以在任一区域操作。

14. EXPORT IGES: Now all the entities can be saved in format and exported to a CAD system.

输出 IGES：所有实体都可以以 IGES 格式保存并输出到一个 CAD 系统中。

15. MIRROR: ARCO enhance now a specific utility to create symmetrical part programs.

镜像：ARCO 增加了一个特殊的功能，创建程序的对称镜像。

16. GRAPHICAL REPORTS: Now the graphical reports are improved with a new table and a better organization of the callouts to reduce the number of pages used in the reports.

图形报告：现在的图形报告改进了一个新图表和更好的插图编号机构，这样可以减少报告的页数。

17. DISTANCE IN GRAPHICAL REPORTS: Now linear and angular distances can be shown in graphical reports.

图形报告中的距离误差：现在，直线距离和角度可显示在图形报告里。

18. OFFSET ON POINTS: Besides SURFACE, now ARCO have the possibility to apply sheet metal offset on feature POINT and EDGES.

点的偏置：出来平面，ARCO 提供适用于钣金件上的点和边界的偏置。

19. ANGLE REPRESENTATION: The entire user interface can handle now angles in Degree Minutes and Second.

角的表述：所有的用户界面都可以用度分秒来表示角度。

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HTTP: www.arccad.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arccad.cn

20. INCHES: All the system can now properly handle inches in his calculation.

英寸：所有的用户都可以使用英寸来计算。

21. MEASURE OF A SLOT: Now ARCO can calculate slot with two algorithms, the standard one and the one based on point over two arch of the slot.

槽的测量：现在 ARCO 可以有两种方法计算槽，一种是标准的计算方法，另一种是基于槽的两个弧上的点。

22. STATISTICAL PACKAGE: Now ARCO can do Statistical Analysis of the data providing information and chart of CP, CPk, X-R, Distribution, Pareto plus specific chart for automotive. (Optional Package)

统计部分：ARCO 可以对数据进行统计分析，提供信息和 CP, CPk, X-R, Distribution 等的图表，自动的加上特殊图表。（可选择的部分）

23. PERFORMANCE IMPROVEMENT: The system is now better optimised in matter of performance. Specifically: import IGES, Initialisation and graphical resource consumption has been improved.

性能改进：系统现已在更好地优化性能的问题。特别低地：输入 IGES，初始化和图像资源消耗得到解决。

24. RPS Alignment: RPS Alignment is now available also if no CAD model is used.

RPS 找正：当没有 CAD 模型时也可以使用 RPS 找正。

25. RPS Alignment: Loop functionality has been added in RPS alignment.

RPS 找正：RPS 找正中增加了循环功能。

26. GD&T Improvement: New datum Reference Frame is now available in GD&T tolerances.

GD&T 改进：GD&T 公差中可以使用定义新基准。

27. POLAR to CARTESIAN conversion: Features measured in Polar mode can now be sent to output in Cartesian mode and vice-versa.

极坐标和笛卡尔坐标转换：在极坐标下测量的元素可以以笛卡尔坐标输出，反之亦然。

28. CURVE Reconstruction: After measuring an unknown profile, ARCO can build curve with three methods, interpolation, approximation, arch and segments.

MetroStaff s.r.l. Beijing Representative office

地址：北京市丰台区南方庄一号院安富大厦 118 室
电话：+86 10-6762.9917
HTTP: www.arccad.com

邮编: 100079
传真: +86 10-6762.1625
Email: info @arccad.cn

曲线重建：在测量一个未知曲线轮廓之后，ARCO 可以利用三种方法构建曲线，插值，逼近，弦高差法。

29. Curve Measurement: ARCO can now make comparison with nominal CAD profiles. Specific tools for best fit with constraint make possible the analysis of the curve.

曲线测量：ARCO 可以利用名义 CAD 轮廓进行对比。具体约束手段的 best fit 可以分析曲线。

30. Sign of the Deviation: The positioning deviation of elements can be now shown in the reports with two concepts: symmetrical (ACT-NOM)*SIGN(NOM) or real (ACT-NOM)

标记偏差：元素的定位偏差在报告中可以表示为两个部分：对称 (ACT-NOM)*SGN(NOM) 或者实际 (ACT-NOM)

31. AUTOSAVE: A timers now automatically save the DMI.

自动保存： 定时自动保存 DMI.

32. REVERSE ENGINEERING: ARCO now includes the optional module to rebuild surfaces with a point-to-point measurement. The patches are guaranteed with continuity of profile, tangent and can be properly compensated of the ruby ball. All the results can be exported in IGES.

逆向工程：ARCO 现在包含了可选模块，利用点到点的测量实现曲面重建。这些补丁是保证轮廓和切线的连续性，可适当补偿红宝石球。所有的结果可以 IGES 输出。

33. CURVE with CATIA native files: Now the curves are imported in the native CATIA V4 files.

CATIA 本地文件中的曲线： 可以利用 CATIA V4 文件输入曲线。

D. Implementation on CNC machines/CNC 机器的改进

1. ARKEY: The volume of the ARKEY can be set in the control panel.

ARKEY: ARKEY 的速度可以在控制面板里设置。

2. ARCO DNC: ARCO DNC is a specific module to run program selecting the part to be measure only by clicking the image. Now program is shown avoiding the possibility of modification.

ARCO DNC: ARCO DNC 是用于运行所选的程序的一个特殊的模块， 只要点击图片就可以运行。程序就可以避免被修改。

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3. MANUAL MEASURING SPEED management: From version 3.74 of CC3-2 Ethernet firmware, P3M CONFIG 2.2 and ARCO 2.6 while in manual mode ARCO enhance two possibilities of measuring speed, proportionally handled with joystick or constant speed in 4 rates ARCO

手动测量速度控制：如果配置是 CC3-2 控制器从 3.74 版本以太网固件，P3M CONFIG2.2 版本，ARCO 2.6 版本，当手动测量提供了两种测量速度，按比例调节操纵杆或者在 ARCO 里设置的 4 位的恒量。

4. DEAD MAN timer: From version 3.74 of CC3-2 Ethernet firmware, P3M CONFIG 2.2 and ARCO 2.6 the DEAD MAN device can be handle with two options: always available or released upon time out.

死区时间：CC3-2 控制器从 3.74 版本以太网固件，P3M CONFIG2.2 版本，ARCO 2.6 版本，配置死区时间可以用两种选择：实时有效或者时间到了释放。

5. Clear Surface: The SAFETY PLANE is now more powerful; with two new parameters it is possible now to avoid collision during the inspection without using GOTO.

安全平面：安全平面更有效，随着两种新参数，可以不使用 GOTO 点而避免在测量过程中的碰撞。

E. Firmware/固件

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MetroStaff s.r.l. Beijing Representative office

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Email: info @arcocad.cn