

Recipe Function Guide

A recipe can have as many as 1023 words of data. The maximum memory size available for recipes is 32638 words. The Workstation saves recipes in its battery backed RAM and the user can create screens to view or change recipe data.

The Workstation sends a recipe to a PLC when the Recipe Write Flag is turned on. The Workstation reads data from the Recipe Block within the PLC to update a recipe when the Recipe Read Flag is turned on.

ADP allows the user to create screen objects to display recipe data. To specify the address of recipe data use the following format:

Address	Description
RCPNO	RCPNO is an internal register of the Workstation that specifies the current recipe number. A valid recipe number must be between 1 and the specified maximum number of recipes. The user can configure a Numeric Entry for the operator to view and change the current recipe number. The RCPNO can also be changed by a PLC. The Workstation will not accept an invalid recipe number. When the user wants to view or edit a recipe, they change RCPNO to the number of the desired recipe. On power up, the Workstation sets RCPNO and RCPNO Image Register to 1. (see Control.pdf for information regarding RCPNO Image Register)
RCPWnnnnn	Each refers to a 16-bit word. The address format RCPWn refers to a 16-bit word at word #n of the current recipe. The user has the ability to address any word of any recipe. (see examples 1 and 2)
RCPWnnnnn.b b = 0 ~ f	The user can address any bit of any recipe word. It is sometimes useful to assign a bit indicator or a bit control in certain applications.

Example 1

Assume that “Recipe size” is 10 and “Number of recipes” is 100. A Numeric Entry configured to display RCPWn ($9 \geq n \geq 0$) always displays word #n of the newly selected recipe. The number of the current recipe is specified by RCPNO. When the user changes RCPNO, the Numeric Entry will automatically display word #n of the newly selected recipe. To edit a recipe, user first changes RCPNO to desired recipe number. If a Numeric Entry is configured to display RCPWm ($m > 9$) where m is equal to $10q + r$, then Numeric Entry is configured to display word #r of recipe #q. For instance, RCPW123 specifies word #3 of recipe #12 and RCPW990 specifies word #0 of recipe #99. RCPW1010 is invalid because in this example there are only 100 recipes.

Example 2

Assume “Recipe size” is 16 and “Number of recipes” is 500. A Numeric Entry configured to display RCPW n ($15 \geq n \geq 0$) always displays word # n of the current recipe. If user configures a Numeric Entry to display RCPW m ($m > 15$) where m is equal to $16q + r$, then Numeric Entry will display word # r of recipe # q . For instance, RCPW123 specifies word #11 of recipe #7 and RCPW990 specifies word #14 of recipe #61 because $123 = 16 * 7 + 11$ and $990 = 16 * 61 + 14$. RCPW8016 is invalid because in this example there isn’t a recipe #501.

To configure the recipe function, click the Miscellaneous tab in the Workstation Setup from the Application menu. The following options pertain to the Recipe function:

Option	Description
Read/Write recipes from/to PLC	Select this option to enable recipe function.
Address	Specifies starting address of Recipe Block. Recipe Block is a block of contiguous registers in PLC. The PLC can request the Workstation to write data from a specified recipe in Workstation to the Recipe Block in the PLC or read the data in the Recipe Block to update a specified recipe in the Workstation.
Recipe Size	Specifies how many words of data a recipe contains. This also specifies the size of the Recipe Block. The maximum size is 1023.
Number of Recipes	Specifies the maximum number of recipes an application can have. The RAM size available for recipe storage is 32638 words.
Edit Field Definition	Allows user to modify each recipe individually. (only available for SoftPanel applications)

* Additional information regarding the Recipe function can be found in Control.pdf.