Find the general solution for $(xy^2+y)dx+xdy=0$. [103 虎尾車輛 1]

[解]原式 $\Rightarrow xy^2dx+(ydx+xdy)=0 \Rightarrow xy^2dx+d(xy)=0 \Rightarrow \dfrac{dx}{x}+\dfrac{d(xy)}{(xy)^2}=0$

$$\int\frac{dx}{x}+\int\frac{d(xy)}{(xy)^2}=C \Rightarrow \ln x-\frac{1}{xy}=C$$